Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

CURRENT LITERATURE.

Minor Notices.

A NEW, revised, and enlarged edition of Dr. George Vasey's catalogue of the agricultural grasses and forage plants of the U. S. has just been issued. There has been such a large demand for this valuable bulletin that a new edition became necessary. The present edition contains 148 pages and 114 plates.

DR. GEORGE LAWSON has published, as an appendix, a school edition of the fern-flora of Canada. A brief account of the general character and parts of ferns is given, followed by a classification of Canadian ferns, with a full account of their localities. A plate illustrates the principal genera and makes them comparatively easy of identification. We would suggest that the work would have commended itself more to "schools" had there been inserted a few simple keys to genera and species.

DR. L. N. BRITTON has published a revision of the genus Eleocharis in N. America, distributed as Contribution 12 from the Herbarium of Columbia College, but reprinted from the *Jour. N. Y. Micr. Soc.* vol. 5, no. 4. So far as the range of Gray's Manual is concerned we note the following changes: E. equisetoides of the Manual=*E. interstincta* R. & S.; E. quadrangulata=*E. mutata* R. & S.; E. obtusa=*E. ovata* R. & S.; E. simplex=*E. tortilis* Sch.; E. compressa=*E. acuminata* Nees. Altogether, 40 species are enumerated, including a new one (E. Parishii) from S. California.

NOTES AND NEWS.

MR. T. S. BRANDEGEE and wife are making further explorations of the flora of Lower California.

PROF. C. S. SARGENT gives a full and illustrated account of Celtis occidentalis in *Garden and Forest* for January 22.

DR. FERDINAND HAUCK, the distinguished algologist, died at Trieste on the twenty-first of December, at the age of forty-four.

DECADES V and VI of Hepaticæ Americanæ, by Underwood & Cook, are announced as ready for distribution. All the sets of the first four decades are exhausted.

MR. G. C. NEALLEY made a large collection of plants of extreme Western Texas during the last season. They will be issued from the Department of Agriculture.

THE AMERICAN NATURALIST is to the front again with its initial number for 1890. It gives promise of renewed life, and its array of editors speaks well for the different departments.

MR. F. H. KNOWLTON, of the Smithsonian Institution, made a good collection of the plants of the San Francisco Mountains, Arizona, last season, which we hope will presently appear in printed form.

BOTANISTS everywhere are reporting the results of our mild winter in calling forth spring flowers. The Washington botanists report the collecting of over twenty spring flowers in January, including Epigæa.

ERNEST COSSON died in Paris, December 31, 1889, in his 69th year. His name is especially connected with the Algerian flora, although in his earlier years he published a flora of the suburbs of Paris, which has gone through three editions.

MR. FRANK TWEEDY, of the U. S. Geological Survey, is always finding rare and new plants in connection with his regular work. He has done much in bringing to light the rarities of the Montana flora. Some of his recent discoveries will soon be published.

THE AMOUNT OF MATERIAL being collected at the Department of Agriculture for the study of North American grasses is really enormous. It is to be hoped that both time and strength will be given to Dr. Vasey to publish fully the results of his many years of study.

IN *Forest Leaves* (Jan.) Dr. Rothrock writes of a puzzling walnut tree growing on the Row Farm, on the northern bank of the James River "a good day's sail above Newport News." It is a gigantic tree, and has been called J. cinerea, J. nigra, J. regia, and a hybrid between the last two. Professor Rothrock seems not to have settled the puzzle.

THE DISCOVERY of Liriodendron Tulipifera in Western China by Dr. Henry is a striking confirmation of Dr. Gray's essay concerning the close relationship between the floras of Eastern North America and Eastern Asia. This Chinese tulip tree seems in no way different from its American representative, although reports so far do not give it such height.

THE BULLETIN of the Agric. Exper. Station of Nebraska, issued December 18, 1889, contains five papers, viz.: The smut of wheat and oats, by J. C. Arthur; The smut of Indian corn, by C. E. Bessey; A preliminary enumeration of the rusts and smuts of Nebraska, by H. J. Webber; Notes on fungi of economic interest observed in Lancaster county, Nebraska, in 1889, by Roscoe Pound; Observations on Populus monilifera, by A. F. Woods.

THE *Bulletin of the Torrey Botanical Club* for January contains much interesting matter. F. V. Coville publishes, with plate, a revision of the U. S. species of Fuirena, of which there are three, with a new variety for F. squarrosa. E. L. Greene, in his bibliographical notes, replaces *Rhus aromatica* Ait., by the older *R. Canadensis* Marshall, and describes a new variety of it from N. Arizona; he also replaces *Rubus Nutkanus* Moc. by *R. parviflorus* Nutt., apparently a very inappropriate name. N. L. Britton describes a new Rhexia from Egg Harbor City, New Jersey. Thos. C. Porter describes new varieties of Arabis lævigata, Fragaria vesca, Rubus villosus, and Aster prenanthoides.

THE SUDDEN DEATH on Tuesday, December 3d, of W. R. McNab is announced. Dr. McNab, the son and grandson of the distinguished curators of the Royal Botanic Garden at Edinburgh, was at the time of his death Professor of Botany at the Royal College of Science, Dublin, and the director at the Botanic Garden at Glasnevin. He was distinguished by his investigations in physiological botany and the minute anatomy of plants, both recent and fossil. Dr. McNab is, perhaps, best known by his researches into the minute anatomy of the leaves of conifers. He has for many years been an active and successful teacher. —*Garden and Forest.*

DR. EDWARD PALMER is at present collecting for the Department of Agriculture in Lower California. He will try to reach Cape St. Lucas and work northward, spending the latter part of the season in Arizona.

THE KEW BULLETIN for January is entirely taken up with an account of the somewhat famous "weather plant" (*Abrus precatorius* L.). Great claims had been made for it, that by certain movements and positions of its leaflets it could forecast with certainty weather 48 hours in advance, such as sunshine, rain, wind, storm, etc., and even subterranean disturbances. The whole matter has been investigated at Kew, and the results published in this bulletin. The movements are those with which we are familiar in many leguminous plants, but the certainty of its predictions is not so clear. For a condensed account of the plant and of the Kew experiments see *Gardeners' Chronicle* for January 25.

SINCE THE DISCOVERY of the sieve tissue by Hartig, a little more than fifty years ago, it has been repeatedly studied. Nägeli, Wilhelm, Russow, Janczewski and Fischer have made it the subject of special memoirs, and various authors have treated it in connection with other tissues of the cortex. In the last numbers of the *Annales des Sciences Naturelles* (*Botanique*)[1] Mr. H. Lecomte publishes a "Study of the liber of Angiosperms," which is a valuable contribution to our knowledge of the tissues which compose it. Amongst other things he states that in the bast of the leaves the sieve tubes are always of the gourd type, no matter what their form in the stem. The same is true of them in the primary bast of the stem. The partition destined to become a sieve plate is from the first not homogeneous, but the cellulose is developed along the bands between the meshes of the sieve which subsequently become perforations. (This primitive wall Mr. Lecomte thinks is not cellulose, and perhaps only pectate of lime, such as that described by Mr. Fremy forming a sort of cement between the parenchyma cells.) The callus which covers the functionless sieve plates is an exaggerated development of the delicate membrane which covers the cellulose part of the plate. While the nucleus generally disappears at a certain time, it can sometimes be seen later in the parietal protoplasm of active tubes. The protoplasm of active tubes is living, surrounding a large vacuole filled with water containing proteid substances in solution; the tubes are therefore not dead elements. It will perhaps bear repetition, though not a discovery of Mr. Lecomte, that the accumulation of the albuminoids at the ends of the tubes as commonly seen in alcoholic material, is wholly a *post mortem* appearance. The transport of the albuminoids must be greatly aided by the proper movements of the protoplasm.—We have summarized only a few of the more important results of Mr. L. Here is a paper that should not be neglected by any histologist.

THE PERIDERM, too, comes in for its share of the observations. A long paper in the same serial by Mr. H. Douliot details his study of its development in a large number of plants. Möller has already distinguished four cases: (1) The phellogen formed from the epidermis itself; (2) from the layer immediately under the epidermis; (3) from a deep-lying layer of the cortex; and (4) in the vascular bundle itself. Douliot further distinguishes two cases instead of the fourth (*a*) the formation of the phellogen from the endodermis; (*b*) from the pericycle.

---

[1] Nos. 4, 5, 6, vol. x, pp. 193–324.